

To: Robbins, Chris[Robbins.Chris@epa.gov]
From: Charlotte
Sent: Fri 3/31/2017 5:47:29 PM
Subject: Re: FYI

Thanks Chris--I'll read & share. I'm very interested.
Have a good weekend!
CC

Sent from my iPhone

On Mar 30, 2017, at 2:58 PM, Robbins, Chris <Robbins.Chris@epa.gov> wrote:

Hi Charlotte,

Thought you might find these news items re: EPA and current situation/issues interesting.

Chris

EPA General

How the U.S. Protects the Environment, From Nixon to Trump – The Atlantic

Trump EPA declines to ban pesticide that Obama had proposed outlawing – Washington Post

EPA Decides Not To Ban A Pesticide, Despite Its Own Evidence Of Risk – NPR

Trump Thinks the “Best Available” Data on Climate Change Is From 2003 – Slate

Pollution scientists fear 'collateral damage' of climate purge

Niina Heikkinen, E&E News reporter

Published: Thursday, March 30, 2017

Carnegie Mellon University researchers use the "Breathemobile" to collect air pollution data in Pittsburgh. Photo courtesy of Albert Presto.

It's morning rush hour in January, and two Ph.D. students at Carnegie Mellon University are trundling into the Breathemobile, a van specially outfitted as a mobile laboratory, to study Pittsburgh's air pollution.

For the next few hours, the pair will drive in 1-square-kilometer loops around parts of the city, using specialized equipment to collect data on gaseous pollutants and soot. The van, the program's second, is hard to miss in the morning traffic, with "Carnegie Mellon University" and "Breathe" emblazoned in large letters on its sides.

"Our original van was a plain white van, and that one got pulled over a lot," said Albert Presto, an assistant research professor of mechanical engineering who led the research.

Presto and his colleagues are hoping the data they collect in Pittsburgh will one day improve understanding of air pollution at the neighborhood level all across the country. Now, though, the team could be in danger of losing a major chunk of its funding, which comes from U.S. EPA. Because its research also considers how climate change affects air pollution, many fear it has a target on its back as the Trump administration seeks to slash federal global warming research.

Presto's work is part of the Center for Air, Climate and Energy Solutions (CACES) at Carnegie Mellon. EPA provides the largest proportion of the funding for the center through a five-year, \$10 million Science to Achieve Results (STAR) grant from the Office of Research and Development's Air, Climate and Energy Research Program.

The administration's budget proposal singles out STAR grant funding for cuts. The blueprint seeks to slash ORD's budget by 48 percent and calls for the office to prioritize "core environmental statutory requirements, as opposed to extramural activities such as providing STAR grants." An earlier Office of Management and Budget "passback" would have cut ORD's Air, Climate and Energy Research Program budget in half, from \$92 million in fiscal 2016 to \$46 million in fiscal 2018, according to an analysis by the Environmental Protection Network.

But if CACES loses funding as a result of cuts aimed at climate change research, scientists say, it would be a case of mistaken identity.

"It's almost a misnomer, calling them climate centers," said Tom Burke, the former director of ORD under President Obama. Burke pointed out that the researchers aren't studying the warming effect of greenhouse gas emissions directly but instead are focused on the public health implications of air pollution, looked at in the broader context of a changing global climate.

Now that the Trump administration is looking to eliminate climate research funding across the federal government, CACES and other research like it could become "collateral damage," he said.

"One of the tough things for the scientific community about this is, environmental research in general is so interconnected. There is no bright line that says this is climate research and this isn't. I'm very concerned about the broader impact on ecological and public health research," Burke said.

'Impossible' research without EPA center

CACES research isn't the only possible casualty of EPA grant cuts. The center is one of three Air, Climate and Energy (ACE) centers that researchers developed with EPA (the other two are at Harvard and Yale universities) to study how climate change, technology and society affect regional air quality and health.

Cuts to EPA's science grants would also have significant short- and long-term consequences for students and professors who depend on some degree of agency funding. The three centers partner with more than a dozen other universities around the country, from Brigham Young University in Utah to the University of Texas, Austin. Cuts to STAR grants more broadly would also affect more recent research on water infrastructure, he said.

"The national network of excellence that STAR has always enabled us to build to address the nation's most pressing environmental questions is really in jeopardy," said Burke.

Peter Adams, a professor of civil and environmental engineering at Carnegie Mellon, is one of the principal investigators at CACES. He is working with Presto to improve the precision of air pollution modeling, down to identifying sources within 1 square kilometer.

"We are doing stuff that would be impossible without the center. Little bits we could do, but the full suite we cannot," Adams said.

Over the five-year grant period, the researchers will focus on five integrated research projects. The first part is fine-tuning the neighborhood-level precision of pollution modeling. The research is key for supporting studies looking at the health impact of the pollution, as well as for impact studies focused on how pollution levels change based on different policy decisions. CACES is also working to make these modeling tools simpler and more accessible to a broader range of users who are weighing the costs and benefits of decisions like switching from coal to natural gas or purchasing electric vehicles, Adams said.

"People thinking of city planning, they care about the benefits and degradation associated with these decisions, but unless they want to spend months of staff time, they don't usually answer this question," he said. "Some of what we do is reduced complexity models; they are basically there to bridge the gap."

Beyond climate change

The next phases of the project will expand research to Austin and Los Angeles, and then apply their research to measuring national pollution levels at an even more refined spatial scale. This information will feed into research on transportation, electricity generation and land use, as well as "climate-dependent emissions, transport and chemistry." The final phase will use the more localized pollution data to better understand the health effects of different types of pollution, such as the health risks of ultrafine particles.

"There are probably big hot spots near roadways and things like that; there's emerging evidence that it's especially bad for you in terms of health. It's not yet well-established. We want to support health decisions around that and look to see if we can link any health effects to these types of particles," Adams said.

Facing budget cuts, Adams and his colleagues aren't sure if their funding is secure until the grant period ends in 2021. The program has been authorized to spend part of the grant funding, but CACES does not have the funds sitting in a bank account ready for use — the university bills EPA as CACES spends the funds, and then gets reimbursed. If the funds are no longer available, Carnegie Mellon students could be the first to feel the impact. Roughly two-thirds of the center's budget goes to supporting 20 to 30 Ph.D. students, said Allen Robinson, CACES director.

"Basically, the students and the postdocs will get laid off, and the students who are being supported on the grants, I don't know what will happen to their studies. They may have to drop out of their Ph.D. or find other funding. Like any situation, we want to protect the students as much as possible; we will do everything in our power to keep them," Robinson said.

Grant cuts would also affect faculty, whose salaries can largely depend on federal grant funding. Over time, a lack of resources would leave the country less equipped to address the public health effects linked to environmental changes, he said.

"This isn't just about carbon, this isn't just about the Clean Power Plan; this is about something that affects every one of us. It's about the quality of our environment, which is an enormous determinant of the quality of our lives," Burke said.

House Passes Bill Requiring Science in EPA Rules to Be Public

By Rachel Leven

A House-passed bill would require science and data used in EPA regulations or assessments to be made public.

The 228-194 vote March 29 was an unsurprising outcome, given passage of a similar bill by a 241-175 House vote last session.

Supporters of the Honest and Open New EPA Science Treatment Act of 2017 (H.R. 1430), sponsored by House Science, Space, and Technology Committee Chairman Lamar Smith (R-Texas), said it would provide transparency into science used in certain Environmental Protection Agency actions. Critics said the bill would bog down further an already slow regulatory process and block the agency from using important science in its decisions.

The bill now heads to the Senate, where new Environment and Public Works Committee Chairman John Barrasso (R-Wyo.) has indicated an openness to addressing the issue, a Barrasso spokesman said. The committee never held a hearing on last session's version of the bill, the Secret Science Reform Act of 2015 (H.R. 1030).

The measure, which would amend the Environmental Research, Development, and Demonstration Authorization Act of 1978, is supported by groups including the American Chemistry Council, U.S. Chamber of Commerce and American Farm Bureau Federation. Opponents include the American Lung Association, Environmental Defense Action Fund and American Geophysical Union.

The House Science, Space and Technology Committee approved H.R. 1430 March 9 by a 17-12 vote along party lines. The Congressional Budget Office hasn't released a cost estimate related to the bill.

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EPA Staff Mostly Ignore Trump Visit To Agency To Sign Climate Directive

March 29, 2017

EPA rank-and-file staff were not invited to the agency's Map Room to see President Donald Trump sign a long-anticipated, high-profile executive order seeking to dismantle the Obama administration's climate change regulatory work, and many staffers tell Inside EPA that they are keeping their heads down and concentrating on work.

“Honestly, no one is talking about” the president's visit, one EPA staffer says. “People are doing their work and just trying to stay positive. . . . trying to do what we can while we still have jobs.”

Another says most staffers are “going along with their day” and did not know anyone that went to the event or watched it. “One person said they are coming to [expletive] on us again, and that they had to do it in person.”

Not only did the president come to EPA headquarters to meet with agency Administrator Scott Pruitt, but they were joined by Vice President Mike Pence, Interior Secretary Ryan Zinke and Energy Secretary Rick Perry, along with a bevy of coal miners and energy industry executives.

In remarks at a March 28 signing ceremony, Trump pledged to save the miners' jobs with the rollback of EPA's Clean Power Plan (CPP), the lifting of an Interior Department coal lease moratorium and other steps.

“We're putting an end to the war on coal. We're going to have clean coal, really clean coal,” he said, before signing the so-called “Energy Independence” order. He also said the CPP

imposed a “crushing attack” and that “perhaps no single regulation threatens” coal miners and energy companies more.

Just before he signed the directive, he told coal miners: “You know what it says, right? You're going back to work.”

However, White House press secretary Sean Spicer said at his press briefing earlier in the day that the administration had not conducted any analysis regarding how many coal mining jobs would be saved by the actions laid out in the order.

EPA staffers were not officially informed of Trump's visit until 90 minutes before the event began at 2 p.m., when they received an email, titled “Our Big Day Today,” from Ryan Jackson, Pruitt's chief of staff.

The email said Trump would sign an order “that calls for reviews of regulations impacting domestic energy use and production. This is an important moment for the EPA. As the Administrator has mentioned many times, we do not have to choose between environmental protection and economic development. Protecting human health and the environment can be achieved while working together towards economic prosperity for all American families. From permitting, to monitoring, to enforcement, we all understand that our ultimate goal is to serve the American people and ensure our approach is inclusive and fair.”

Jackson then listed viewing options on the agency's intranet.

Inside EPA first reported Feb. 14 that Trump intended to sign the order at EPA, prompting swift derision from staff and questions about who would be in the room with the president and whether leadership could demand a command performance.

'A Mess'

The second staffer notes that the email announcing Trump's visit “didn't even offer people seats. It said 'limited space.'”

And while staff “are paying attention to this as being one more jerk of a move, they are not

going to go” or watch.

This source says it will be interesting to see how program staffers – without any political leadership aside from Pruitt at the agency so far – will “pretzel themselves to come up with a justification” for rolling back the EPA rules, which include the CPP and related greenhouse gas standards for new power plants, along with methane requirements for new oil and gas drilling operations.

“Timing is a question,” the source says. “It’s going to be a mess and take some time, especially because no politicals are on board.”

Another EPA staffer quipped: “We are looking forward to hearing the president’s plan to protect the environment and the planet’s future. Global warming isn’t just happening at Mar-a-Lago,” Trump’s Florida resort where he likes to spend weekends.

A fourth EPA source said earlier in the day, before Trump arrived, that the “mood has been relatively light,” and that most staff members would agree with the language in Jackson’s email.

“If the administrator has a different direction he wants us to push, that’s what we’ll . . . do,” the source says, noting that Trump’s executive order is unlikely to have a major impact on the agency’s enforcement office. “You have to factor in the administration’s goal, but there is more than enough work for us to do so we have never yet had a shortage of enforcement work to do,” the source says. “I expect that to continue. We may look harder in one direction and less in another, but that’s always the case.”

However, a fifth EPA source complains that Trump’s visit was part of the president’s broader political efforts. “The EPA is being used as a prop and turned into a reality show for the day, unfortunately. The people here want more substance from this administration, and are waiting for them to open their eyes and ears to facts, data, research, and analysis that underpin the work we do every day.”

For example, the source points to Energy Information Administration data that shows fossil fuels have been doing better than ever, especially natural gas and oil, with coal slumping due to market forces rather than the CPP, which has been stayed by the Supreme Court pending the resolution of litigation challenging its legality.

Additionally, former EPA staffers also charged that Trump's move is audacious because he visited EPA to revoke rules promulgated by the agency under the Obama administration.

One source notes "most of the staff weren't invited to come see the president and what's being announced. Compare that to when [Administrator Gina McCarthy] announced the CPP or when Obama came to the agency" to thank the staff for its work.

A second former staffer says: "I haven't heard too much from my friends there. But, safe to say, excited is not how I'd characterize their sentiments."

Also, a third former agency official says, "I think the mood, in general, is pretty down and today's events are unlikely to boost it for the majority of staff there." -- Dawn Reeves (dreeves@iwpnews.com)

House OKs 'secret science' bill; advisory board bill up today

Sean Reilly, E&E News reporter

Published: Thursday, March 30, 2017

The House has again passed legislation that would bar U.S. EPA from pursuing new regulations based on science that is not "transparent or reproducible," brushing aside critics' warnings that it would hamstring the agency's ability to protect public health and the environment.

The bill, H.R. 1430, won approval late yesterday by a 228-194 margin after a perfunctory one-hour debate under a closed rule that barred amendments. Three Democrats voted yes; seven Republicans were opposed.

The House approved similar measures titled the "Secret Science Reform Act" in 2014 and 2015. Both then died in the Senate following Obama administration veto threats. Although the latest version, dubbed the "Honest and Open New EPA Science Treatment Act," is certain to play better with President Trump, it still faces uneven odds in the Senate, where

60 votes are needed to move legislation of any significance.

Potentially raising the bar further is a Congressional Budget Office forecast released after yesterday's vote that estimated that annual implementation costs over the next few years could range from a few million dollars to around \$100 million.

The bill, sponsored by House Science, Space and Technology Chairman Lamar Smith (R-Texas), would require online availability of the research data used in studies undergirding new regulations as a means of allowing independent analysis. "Our goal is to help advance not just any science, but the best science," Smith said during yesterday's floor debate.

As they have in the past, Smith and other Republicans portrayed the bill as an open-government measure intended to shed light on the research behind EPA rules that can sometimes carry a considerable economic wallop.

"It's like they have a little black box over there; they don't ever let anyone else look into it," said Rep. Brian Babin (R-Texas). "Show us your data."

Critics, however, see the legislation's purported purpose as anything but honest. Instead, they have argued, it would make it easier for industry to bring lawsuits against new rules, while making it harder for EPA to tap important research because the results of studies based on large data sets aren't easily reproducible.

Rep. Eddie Bernice Johnson (D-Texas), the Science Committee's ranking member, described the bill as even worse than its two predecessors and said it would stifle EPA's ability to protect public health. "Unfortunately in this case," Johnson said, "the third time is not the charm."

Democrats also questioned the value of a newly added exemption for personally identifiable and sensitive business information from the internet posting requirements, given that the data could still be obtained through a confidentiality agreement with the EPA administrator.

An even bigger question mark hovers over the bill's potential cost.

A 2015 Congressional Budget Office analysis of a similar measure pegged the annual price tag for the first couple of years at \$250 million. During yesterday's debate, Smith said that reading was a misinterpretation of the implementation requirements.

But the CBO score for H.R. 1430, released after yesterday's vote, signaled that the expense for EPA could still be substantial, even as the agency faces a 31 percent cut under Trump's proposed budget for next year.

Although the final tab would hinge in part on how much money EPA chooses to invest in "infrastructure" to make researchers' data more widely available, the overall amount could range from several million dollars per year to more than \$100 million per year "to ensure that data and other information underlying studies are publicly available in a format sufficient to allow others to substantially reproduce the results," the CBO analysis said. Based on the "minimal" approach that EPA officials say they plan to take, however, the budget office pegged total spending from 2018 through 2022 at \$5 million.

Earlier this week, Smith had predicted the implementation cost would be "minuscule" (E&E Daily, March 28). His legislation would cap EPA's annual spending at \$1 million, or roughly in line with what agency officials told CBO they would use.

Smith's bill is traveling in tandem with H.R. 1431, a separate measure by Rep. Frank Lucas (R-Okla.) to revamp membership requirements for EPA's Science Advisory Board. Earlier in the day, the House cleared the latter bill on a 232-188 vote for debate this morning. It will probably pass by lunchtime.

Sierra Club launches #SaveTheEPA ad effort

Nick Bowlin, E&E News reporter

Published: Wednesday, March 29, 2017

The Sierra Club is pushing senators to oppose President Trump's proposed U.S. EPA budget cuts.

In the first draft of the president's budget, the agency would be hit with a 31 percent cut, or about \$2.6 billion. That would bring the budget to its lowest level in four decades, adjusted for inflation.

In response, Sierra Club announced a five-figure digital ad campaign, complete with a hashtag: #SaveTheEPA.

The advocacy group has five different ads, addressing clean water, air quality, food and pesticides, climate change, and science.

The ads will go after Democrats in states won by Trump in 2016: Sens. Sherrod Brown of Ohio, Tammy Baldwin of Wisconsin, Debbie Stabenow of Michigan, Bob Casey of Pennsylvania, Jon Tester of Montana, Heidi Heitkamp of North Dakota, Joe Manchin of West Virginia, Claire McCaskill of Missouri and Joe Donnelly of Indiana.

Other targets include Republicans seen as vulnerable in 2018 — such as Sens. Jeff Flake of Arizona and Dean Heller of Nevada — or as potential allies on climate issues: Sens. Susan Collins of Maine, Lindsey Graham of South Carolina, Lamar Alexander of Tennessee, Marco Rubio of Florida, Cory Gardner of Colorado, Rob Portman of Ohio, Pat Toomey of Pennsylvania and Bob Corker of Tennessee.

In addition, the ads target Sens. Angus King (I-Maine), John McCain (R-Ariz.), Tom Carper (D-Del.), Amy Klobuchar (D-Minn.) and Mark Warner (D-Va.).

Commentary: EPA cuts would endanger public health

Updated: MARCH 27, 2017 — 3:01 AM EDT

by Ana V. Diez Roux

Probably the most important thing our society can do to protect our health is to ensure a clean and healthy environment. This is likely far more important in terms of both lives saved and illnesses prevented than ensuring access to health care, than delivering drugs, than targeting treatments based on genetic factors, or even than curing cancer. And yet we live in a world where some believe that the science behind many medical treatments or genetic risk prediction is more reliable than the science behind environmental regulation. In fact it's just the opposite.

Regulations to improve air quality are a perfect case in point. In 2012 the World Health Organization estimated that ambient air pollution killed about 3 million people a year worldwide. In the United States, an estimated 200,000 people die prematurely each year because of air pollution. However, dramatic reductions in air pollution in the United States that have resulted from regulations implemented under the Clean Air Act have saved hundreds of thousands of lives and protected many more from illness and disability.

A solid and interdisciplinary body of research, comprising laboratory animal experiments, human exposure studies, and sophisticated epidemiologic studies, have identified the effects of a number of air pollution exposures on health. The process through which the Environmental Protection Agency (EPA) uses this evidence to set regulatory standards is exemplary of the best use of science to make policy.

Under the Clean Air Act, the EPA is required to review the evidence on each criteria pollutant - carbon monoxide, lead, nitrogen dioxide, ozone, particulate matter, and sulfur dioxide - every five years. This is an intense process involving extensive scientific and public input.

The EPA staff assesses the evidence for health effects based on a range of different types of scientific studies. They obtain expert advice and hear public comment from a range of organizations and individuals. They systematically and rigorously evaluate the impact of various regulatory standards on the health of large population groups. Ultimately, they make recommendations based on the best available evidence. The EPA administrator then considers the recommendations in the context of other relevant policy factors and makes a

decision on any proposed changes to the standard.

The process works: The air we breathe has improved dramatically, and the economy has not suffered because of it.

Since the passage of the Clean Air Act more than 40 years ago, and despite an increase of more than 50 percent in the U.S. population and a 250 percent increase in the gross domestic product, there has been a 70 percent reduction in emissions of criteria air pollutants. Children have grown up healthier. It has been one of the great, silent public-health successes of the past 50 years.

This is government functioning at its best: protecting the public based on the best available scientific evidence, while using a transparent process that takes into consideration not only science but a broad set of social and economic factors.

The role of government in protecting the public from environmental harms is critical. These are not harms that the public knows about or can willingly avoid. They are things in the air we breathe, in the water we drink, in the houses we live in. Environmental hazards are silent killers that we often do not know about and cannot individually control.

Imagine a world without environmental regulation. We can get an inkling of what a world like this is like from what is happening in places such as China, where air pollution levels are often several times higher than internationally accepted maximum levels and about 1.6 million deaths a year have been attributed to air pollution (aside from the burden of air pollution-related illness).

The recent cuts proposed for the EPA in President Trump's budget could fundamentally affect government's ability to protect the health of the public.

The EPA has been an international model for smart and responsible environmental protection that has benefited all of us. Rolling back on environmental protection, and on the science we need to sustain it, is not the right thing for America.

Ana V. Diez Roux, M.D., is dean of the Dornsife School of Public Health at Drexel University and chair of the EPA's Clean Air Scientific Advisory Committee. The views expressed are her own. avd37@drexel.edu

ACE

Del. sues over delayed EPA study of Pa. power plant

Sean Reilly, E&E News reporter

Published: Wednesday, March 29, 2017

Delaware is challenging U.S. EPA's delay in acting on a dispute over a Pennsylvania power plant's alleged impact on the smaller state's air quality.

In a newly filed lawsuit, the Delaware Department of Natural Resources and Environmental Control seeks court review of EPA's decision to take another six months to address the state's complaint that upwind emissions from the Conemaugh Generating Station are contributing to compliance problems with federal ozone standards.

The 1,711-megawatt coal-fired plant is located in southwestern Pennsylvania. While its owners include a subsidiary of New Jersey-based Public Service Electric and Gas Co., a full list was not immediately available this morning.

Delaware had filed the petition with EPA in November 2016; under the Clean Air Act, the agency was supposed to respond within 60 days. In January, however, EPA officials said they needed until early August to carry out a technical review and put out a proposal for public comment (Greenwire, Jan. 21).

Delaware's suit, filed Friday with the U.S. Court of Appeals for the District of Columbia Circuit, was slow to show up in the federal courts' online record system. The Delaware agency opted to sue because EPA's extension would put the state's requested remedy outside of the ozone season, which this year runs from the beginning of March until the end of October, spokesman Michael Globetti said. An attempt to get comment from EPA was unsuccessful.

Delaware is also suing over EPA's decision last year to give a Philadelphia-based nonattainment area another year to comply with the 2008 ozone air quality standard of 75 parts per billion. That suit, also filed with the D.C. Circuit Court, is pending (E&E News PM, July 12, 2016).

CSS

Experts agree EPA review of dioxane, other toxic chemicals is needed – Mlive

ACC Presses EPA To Restrict Scope Of Chemical 'Uses' For TSCA Reviews

March 29, 2017

The American Chemistry Council is pressing EPA to restrict the scope of chemical "uses" it considers for the first 10 substance reviews it is planning under the revised Toxic Substances Control Act (TSCA) authority, arguing the agency should only look at the chemicals' current uses rather than all possible uses of the substances.

"It is very important that the first 10 (and subsequent) risk evaluations be successful, effective, and completed within the statutory deadline. Therefore, it is important that EPA prioritize the conditions of use it will evaluate and focus on those that present the greatest potential risk to human health and/or the environment," writes ACC in recent comments to EPA.

The comments highlight an opposing stance to environmentalists and others who have

suggested that that first 10 chemicals EPA reviews under the updated toxics law should consider all possible uses.

ACC filed the comments on the Obama EPA's list of 10 substances it would review for possible restrictions or bans with the new authority given it in last June's Frank R. Lautenberg Chemical Safety for the 21st Century Act (LCSA). The chemicals are 1,4 dioxane; 1-bromopropane; asbestos; carbon tetrachloride; cyclic aliphatic bromide cluster; methylene chloride; n-methylpyrrolidone; pigment violet 29; trichloroethylene and tetrachloroethylene.

EPA Administrator Scott Pruitt has said the agency will push ahead with implementation of LCSA. The agency has begun scoping work to determine how the analyses will be conducted. The updated toxics law sets a Dec. 19, 2019 deadline for EPA to complete risk evaluations determining whether the chemicals present an unreasonable risk to humans or the environment -- and if so, triggering risk management rulemaking.

But some observers have raised questions about whether the Trump EPA will pursue the same list the Obama EPA proposed, given President Donald Trump's comments doubting concerns about asbestos. And ACC's comments show debate lingers about the scope of a chemical's uses EPA should consider in the evaluations.

ACC says some speakers at a February EPA stakeholders' meeting "claimed that EPA is required to examine all conditions of use, all vulnerable subpopulations, aggregate risks, continuing exposures to legacy contamination, intended and actual uses (even misuses), and incidental and cumulative exposures. It was suggested that EPA should not consider current risk management measures in place . . . based on a blanket assertion that people often do not follow risk management requirements or read labels. Notably, EPA is expected to accomplish all these tasks within the statutory deadlines. ACC is concerned that such a comprehensive approach is neither legally required nor practical."

Chemical Reviews

EPA's interpretation of changes in the statute regarding how the agency conducts its pre-market review program for new chemicals, known as the pre-manufacture notice (PMN) process, has stalled its processing of new chemicals. Industry representatives at an annual conference last month complained that EPA's PMN program, which usually processes 1000-1500 PMNs a year, has completed just 33 in the past six months, Cal Dooley, president and CEO of ACC told attendees at GlobalChem Feb. 23.

Delays are said to stem from EPA's insistence that its PMN reviews must consider all potential uses of the new chemicals in order for the agency to make the statements now required about the risks that the chemical may pose to human health and the environment. EPA's acting toxics chief Wendy Cleland-Hamnett said at the event that she and her staff are working to improve the process but must meet the statute's requirements in their reviews.

ACC in its comments argues that there is no statutory mandate for EPA to include all conditions of use in its evaluations of existing chemicals as outlined in section 6(b) of the updated toxics law. "The LCSA requires EPA to conduct risk evaluations to determine whether a chemical substance presents an unreasonable risk of injury to health or the environment under certain evaluated circumstances called 'conditions of use.'"

ACC argues that the statute requires EPA to scope evaluations before conducting them in order to select the chemical uses that should be evaluated. "Congress intended the scoping phase as the opportunity to focus the risk evaluation; otherwise, Congress would not have included the step," the group argues, adding that Congress could have required EPA to evaluate all uses as part of the updated TSCA, but did not.

ACC also quotes the LCSA's definition of condition of uses as "'the circumstances, as determined by [EPA], under which a chemical substance is intended, known, or reasonably foreseen to be manufactured, processed, distributed in commerce, used, or disposed of.' Nowhere in the statute does Congress modify 'conditions of use' with 'all.' The plain meaning of the statute does not require EPA to include 'all' conditions of use in a risk evaluation. EPA clearly has the discretion to scope the risk evaluation to include and exclude certain uses."

In addition, ACC argues that there are situations that EPA should exclude from its evaluations, among them chemical uses regulated by laws other than TSCA, accidental or misuses of chemicals, chemicals present in trace amounts or unintentionally added, and "defunct uses" of substances.

ACC says, "EPA has a directive from Congress to narrow, not expand, the universe of all potential exposures to those that are most significant in terms of risk -- current conditions of use -- not obsolete ones."

'Scarce Resources'

The trade association American Cleaning Institute (ACI) in its March 6 comments makes the same argument regarding one of the first 10 chemicals EPA has selected for evaluation, 1,4-dioxane, which is used to make soaps and detergents and can remain in the finished products as a contaminant but is not an ingredient.

"Given the extraordinarily low levels of 1,4-dioxane that might remain at trace quantities in certain materials and products, we question whether any further in-depth assessment of the unintentional presence of the substance must be undertaken and whether doing so represents a good use of the Agency's scarce resources," ACI writes. "Thus, ACI recommends that the Agency exercise its discretion to determine that the presence of unintentionally present trace levels of 1,4-dioxane in consumer and similar commercial products is beyond the scope of the risk evaluation EPA will undertake for 1,4-dioxane." ACI goes on to argue that unintended impurities or residues are not conditions of use as defined by the LCSA, nor do they meet the law's risk standard for performing an evaluation.

ACC, meanwhile, argues that EPA should ignore calls from environmental and advocacy groups to consider aggregate exposures and narrow its analyses of the risks that chemicals pose sensitive subpopulations -- as required in the statute -- to "potentially exposed or susceptible subpopulations relevant to the conditions of use."

Further, while the statute directs EPA to consider whether workers may be a potentially exposed or susceptible subpopulation, ACC argues that "Any consideration of worker exposure must acknowledge that worker exposures are regulated under the Occupational Safety and Health Act (OSHA). Given that OSHA protocols are designed to regulate risk to worker populations, it should be the unusual case where an unreasonable risk may present to a worker population under conditions of use (e.g., use of controls and personal protective equipment)."

ACC goes on to remind EPA that under section 9(d) of the revised TSCA, the agency must consult with OSHA before undertaking risk mitigation actions that would impact workers.

Best Science

ACC also reminds the agency of the new language in TSCA section 26 requiring EPA to use the best available science and the weight of the scientific evidence in its evaluations.

While the group merely defines the terms in these comments, ACC at recent hearings in Congress has raised concerns that EPA has indicated that it believes its existing practices meet these scientific standards and does not intend to make changes to its operating procedures.

For example, ACC argued before a March 9 Senate Homeland Security and Government Affairs Committee, Regulatory Affairs and Federal Management panel hearing that EPA needs to make changes to strengthen its approach and make it more transparent, such as using a systematic review approach in its analyses.

ACC in its new comments to EPA also raises concerns about the agency's use of its Toxics Release Inventory (TRI) data in the preliminary scoping information the agency released last month about each of the 10 chemicals. The group argues that the database does not include information on relevant factors relating to exposures, such as environmental fate, exposure routes and pathways.

"ACC believes TRI may have a role to play as an element in an overall approach to chemical prioritization, but it is of questionable or little value in risk evaluation, which EPA should acknowledge and explain," the comments say. -- Maria Hegstad (mhegstad@iwpnews.com)

SHC

EPA sidestepped tougher standards on danger levels

Published: Wednesday, March 29, 2017

In the final days of the Obama administration, U.S. EPA issued an internal memo that avoided setting a new threshold for acceptable lead levels, despite nationwide promises to communities dealing with lead poisoning.

Local officials expected the guidelines to lower the level deemed dangerous for children and encourage the owners of contaminated sites to fund cleanup projects.

The internal memo, obtained by STAT, provided only general guidance on determining factors for cleanup efforts.

"The cleanup target ought to be health-based, and based on the most current scientific information. There's a lot of wiggle room left here," said David Bellinger, a professor at Harvard Medical School and previous EPA adviser.

The mayor of Depue, Ill., was devastated to hear about the memo. Mayor Eric Bryant has been fighting for cleanup funds for a 750,000-ton stack of lead, arsenic and other toxic metals left by a business that once employed most of his town.

"The health and safety of our children is not the main issue for EPA," Bryant said. "If it were, then there would be a new standard for lead in the ground. Without it, it's very difficult for us to fight these big companies" (Sheila Kaplan, STAT/Boston Globe, March 28). — CS

SSWR

Democrats press Pruitt to address conflict of interest

Ariel Wittenberg, E&E News reporter

Published: Thursday, March 30, 2017

U.S. EPA Administrator Scott Pruitt hasn't responded to requests from Senate Democrats that he address an apparent conflict of interest caused by President Trump's executive order that directs the agency to review and possibly rescind the Clean Water Rule.

Environmental and Public Works Committee Democrats asked him last week to confirm that he has either recused himself from actions related to the regulation or received permission from ethics officials to remain involved in the rule review (Greenwire, March 21).

The letter requested a response "by no later than March 29." A Democratic aide said neither Pruitt nor EPA has responded.

EPA didn't respond to repeated requests for comment for this story.

At issue is a lawsuit Pruitt filed as Oklahoma attorney general against the Obama administration's Clean Water Rule.

The regulation, also known as the Waters of the U.S. rule, or WOTUS, aims to clarify the reach of federal regulations over wetlands and waterways under the Clean Water Act. It was strongly opposed by farmers, land developers and energy companies that said it amounted to federal overreach.

Trump's executive order directs EPA to rescind the regulation and to "promptly notify the Attorney General of the pending review" so that the Department of Justice can decide how to proceed on lawsuits filed against the litigation.

Two days after that order was signed, Pruitt himself signed a notice indicating EPA had begun its review of the regulation.

But Senate Democrats say the executive order creates a conflict of interest for Pruitt because it includes "explicit direction" regarding the lawsuit he filed as Oklahoma attorney general.

Pruitt has signed an ethics agreement stating he would seek authorization from EPA's designated ethics official to "personally and substantially" participate in "particular matters involving the specific parties in which I know the State of Oklahoma is a party or represents a party."

Pruitt also told the committee during his confirmation hearing he would recuse himself from matters related to litigation he filed as attorney general unless he had permission from ethics officials.

Senate Democrats are asking for proof Pruitt has done that.

"Although we all continue to believe," they wrote, "that you should have made more extensive recusals than the ones you committed to, the specific language in section 2(c) of the Order should have triggered even the more limited recusal policy to which you have already and repeatedly agreed."

Science and Science Communication

Thousands of pollution deaths worldwide linked to western consumers – study – The Guardian

The Woman Who Gave Us the Science of Normal Life – Nautilus

Scientists Who Want To Study Climate Engineering Shun Trump – NPR

Unbalanced climate-change hearing proves pointless – Washington Post

Climate Scientists Are Being Chilled, Witnesses Say at Hearing

By Rachel Leven

Scientists are being attacked by politicians, other scientists and others for their findings on climate change, a panel of witnesses told a House committee March 29.

Michael Mann, a leading scientist among the 97 percent of scientists who have found human-caused climate change is real, expressed frustration that science with consensus as deep as that around the existence of gravity is still being disputed and that scientists are being intimidated through congressional investigations and other means.

But three other scientists who disagree with the 97 percent argued they were the ones being chilled.

“The attacks against scientists by individuals, groups, many of them allied with fossil fuel interests and fossil fuel front groups, are” in an effort to “silence climate scientists,” Mann, distinguished professor of atmospheric science and director of the Earth System Science Center at Pennsylvania State University, said at the House Science, Space and Technology Committee hearing.

“If you get attacked every time you publish an article that demonstrates the reality and threat of climate change, if that causes you to be subject to congressional inquiries and Freedom of Information Act requests, obviously that's very stifling and I think the intention is to cause scientists to retreat.”

The hearing, which was intended to focus on the scientific method of climate science, is the latest instance of a climate science event devolving into partisan divides. This time, those divides for Democrats were aimed at protecting the 97 percent from inappropriate chilling while Republicans sought to protect the minority, who some Democrats called the “fringe” scientists, a term the three scientists disputed.

“Those that disagree with the mainstream are being brutalized into silence,” Rep. Dana

Rohrabacher (R-Calif.) said. “From the get-go” of this hearing “we have heard personal attack after personal attack after personal attack by those that claim to represent mainstream science.”

Mann said his own and other scientists’ work that discussed climate change as a human-caused threat that needs to be addressed has been attacked by Congress and interest groups on the basis of the science, conspiracy and personal attacks, among others.

Meanwhile, other scientists including Roger Pielke Jr., a professor in the University of Colorado's environmental studies department and director of a Center for Sports Governance—described their own attacks received from the Obama-era White House, Congress and other interest groups that, in Pielke's case “after being vindicated” still hindered his ability to work in the science field.

But Mann sought to draw a distinction between personal attacks and valid questioning of science, such as asking for researchers to publicly state their sources of funding. He also added that while it may be unpleasant to be called a climate denier, as Mann called another witness in his written testimony, that term may sometimes be appropriate.

“I use the term carefully--reserving it for those who deny the most basic findings of the scientific community, which includes the fact that human activity is substantially or entirely responsible for the large-scale warming we have seen over the last century,” Mann said. Mann later said in the hearing that he did not call the other witness a climate denier in his written testimony.

The chairman found himself personally at odds with Mann. Mann called the Heartland Institute that held an event where Smith recently spoke a “climate denying” institute. But Smith countered, “They do not say they are deniers and you should not say they are either.”

“We can have that discussion. I'd be happy to,” Mann said. “Let me finish my statement...”

Smith cut him off, saying, “Well, be accurate in your description.”

Smith also downplayed the credibility of Science Magazine, which is published by the

American Association for the Advancement of Science. During the hearing he minimized its stature when its reporting on his Heartland comments were brought up by Mann.

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Climate's effect on mental well-being undersold — study

Erika Bolstad, E&E News reporter

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Climate change is beginning to take a significant toll on mental health, the American Psychological Association warned in a paper released today.

Most people think of the effects of global warming as being mostly tied to weather patterns, including rising seas, heat waves, droughts and flooding, the report notes. But the longer-term effects of such events, including the possibility of involuntarily relocation, can cause significant stress to individuals and communities.

People who are especially at risk for mental health impacts from climate change include those whose livelihoods are directly tied to the natural environment, especially farming, fishing and tourism. Indigenous communities, some communities of color and people with existing disabilities or chronic illness are more likely to see mental health impacts from climate change.

The report urges communities to build "resilience," a buzzword drawn from disaster management. Researchers have long known that levels of social support during and in the aftermath of a disaster are associated with lower rates of psychological distress, the report notes, and climate change is no different. One section of the report details ways mental health professionals can support people by helping them build psychological resilience.

"Many local governments within the United States and in other countries have created plans to protect and enhance infrastructure, but these plans tend to overlook the support needed to ensure thriving psychological well-being," the report says. "There is an opportunity to include the resilience capacity of individuals and communities in the development of preparedness plans."

The report, which compiles recent research on the effects of climate change on public health, suggests people who better understand that their actions might make a difference are actually more motivated to act on climate solutions. They can do that by building belief in their own resilience, fostering optimism, cultivating active coping skills, maintaining practices that help provide a sense of meaning, and promoting connectedness to family, place, culture and community.

It also suggests that climate solutions are available now that would help psychological well-being. They include such actions as walking or biking to work, creating more green space in communities and adopting clean energy solutions.

"These climate solutions, among others, can help to curb the stress, anxiety and other mental illnesses incurred from the decline of economies, infrastructure, and social identity that comes from damage to the climate," the report says.

Lamar Smith on space travel, 'good science' and the Trumps

Hannah Northey, E&E News reporter

Published: Thursday, March 30, 2017

House Science, Space and Technology Chairman Lamar Smith (R-Texas) led a hearing on climate science yesterday. Photo courtesy of the Science, Space and Technology Committee.

Rep. Lamar Smith (R-Texas) says the federal government should be researching climate change.

But try pinning the chairman of the House Science, Space and Technology Committee down on exactly what the government's role ought to be.

During a recent interview in his corner office in the Rayburn House Office Building, Smith blasted U.S. EPA's climate research as politically tainted and voiced support for President Trump's proposed budget cuts at agencies like NASA and the National Oceanic and Atmospheric Administration that gather data on emissions, temperatures and clouds using satellites.

When pressed for what kind of work that left the federal government, the soft-spoken Texan said he supports research and development but only when it's not in direct competition with the private sector or tied to costly and ineffective regulations like EPA's Clean Power Plan.

"But we need to gather information, we need to gather data on climate change, absolutely," Smith said. "Do we need the satellites? Absolutely."

As chairman of the House Science Committee, Smith, 69, has grown more vocal and aggressive as the world of politics and science collide under a Trump administration. At a hearing yesterday, Smith challenged the credibility of Science, the prestigious publication by the American Association for the Advancement of Science, and traded barbs with ranking member Eddie Bernice Johnson, a Democrat who is also from Texas (Greenwire, March 29).

Smith, who is in his 16th term representing the San Antonio and Austin areas, recently chatted with E&E News about space travel, the Trump family, the role his committee will play as the president scraps Obama-era climate regulations and those controversial stories his committee is retweeting.

The House Science Committee recently retweeted a controversial Breitbart story denouncing a "global warming scare." Do you tweet?

I approve tweets.

You were recently at the White House for a bill signing. Did you chat with President Trump about science and technology?

No. I will say, the president wasn't the only one in the room I was eager to speak to ... last-minute entries for the bill signing were Melania Trump and Ivanka Trump, so he was sharing the limelight.

Should the federal government be studying climate change?

Absolutely ... in fact, I'd like us to increase our R&D [research and development] budgets in a lot of areas. That would be a part of the mix because I just think that if you're concerned about climate change, the best way to address it is through those technological innovations. There's a role for the federal government and a role for the private sector, and you want it to be collaborative, not competitive.

How and where should federal climate research take place?

In some R&D, again not when they're competing in the private sector. And then also, even when they're not competing with the private sector, I still think the government wastes too much money again trying to promulgate regulations that are inefficient and ineffective. But we need to gather information, we need to gather data on climate change, absolutely. Do we need the satellites? Absolutely.

But what about President Trump's proposed budget cuts?

A lot of those cuts are going to be reprioritizing some of the agency goals ... and let's stop

throwing billions of dollars at regulations that are not going to be effective, that are not going to accomplish much.

What's on tap for the House Science Committee this year?

In the case of science, we want to make sure we're relying upon good science, honest science, not politically correct science to implement policies. ... [W]e're going, I think, to help agencies who in the past have been prone to using secret science ... be more open with us, their representatives."

In a couple years from now, we'll see the advent of space tourism. All it does is cost \$250,000 and you can buy a ticket to ride up to 62 miles, lower Earth orbit. I actually want to do that — I shouldn't be making fun of this — get a certificate for being a junior astronaut. I'm going to start dropping hints pretty soon about needing a government CODEL [congressional delegation] going into lower Earth orbit so I and one Democrat on the committee can be two of the volunteer passengers without having to pay our half-million dollars jointly.

What role will the committee play as the White House scraps President Obama's climate legacy?

I think generally we expect to be supportive of [Trump's] initiatives and his view of science, and he's talked about R&D, as well. So I think generally we'll be supportive, but we're still going to conduct oversight regardless of who the administration is.

What about subpoenas?

I don't expect to need to issue near as many subpoenas with this administration as I did with the last. I think it was 25 with the last Congress.

What if they don't comply?

We have three choices if they don't, the same three choices that would apply to the object of any subpoena. We can invoke to hold them in contempt, we can file a lawsuit, and we can refer the next step to the AG [attorney general] for prosecution. I see one of those three happening, yes, and we're still thinking about which is the best way to proceed.

Are you trying to eliminate climate research?

I think we need the right kind of research.

How should we address climate change?

I think technology is the answer. That's what R&D is for, we don't know what the answer's going to be. Fifteen years ago, we hadn't heard of fracking.

Were you aware a nonprofit group, 314 Action, had targeted you as "anti-science"?

Targeting me? Oh, who knows, I hadn't heard.

What's your response to the March for Science planned for April 22?

They're exercising their First Amendment rights, they're exercising their right to free expression. I'm sure they will do it in the right way. But they could be so much more constructive if they would get behind the idea of technology leading the way to address climate change, rather than more regulations.

Reporters Christa Marshall and Hannah Hess contributed. This interview has been edited and condensed.

Agency denies banning climate change language

Umair Irfan, E&E News reporter

Published: Thursday, March 30, 2017

The Department of Energy and former staffers are pushing back against a report that the agency banned the use of the phrase "climate change."

Politico reported yesterday that employees at DOE's Office of International Climate and Clean Energy were told to avoid using the phrases "Paris Agreement," "emissions reduction" and "climate change" in written communications. The incident occurred as President Trump signed an executive order Tuesday at U.S. EPA headquarters rolling back climate change directives from the prior administration.

DOE denied any language restrictions. "There's been no policy put out not to use any of those words," said Michelle Laver, a DOE spokeswoman.

Graham Pugh, who was the director of the office overseeing the climate and clean energy division until 2014, said that organizations were already in the process of rebranding.

"It is absolutely true that prior to inauguration but after the election, the Office of International Climate Change Policy and Technology was seeking to change its name to remove 'climate,'" said Pugh, a career staffer who started working at DOE under the George W. Bush administration in 2005. "The drill is you change 'climate change' to 'competitiveness.'"

The Office of International Climate and Clean Energy falls under DOE's Office of

International Affairs and focuses on international collaboration on clean energy initiatives.

Pugh said that career staffers do change language around politically sensitive terms during a presidential transition, but it's often done with a wink and a nod rather than an overt directive.

But after eight years of President Obama, who made climate change a signature issue in his second term, career DOE staffers have had to do a lot of scrubbing, and for offices with "climate" in their names, the scrutiny is unavoidable.

Barbara Dunkin, a program specialist for a fellowship program that sends researchers to work in the Office of International Climate and Clean Energy, also denied knowing about the order to avoid climate change wording in written communications.

"I have no knowledge of that," Dunkin said. "They don't copy me on those decisions."

Pugh said it was unlikely that the Trump transition team or beachhead team would be so overt in limiting language around climate change, especially after the backlash they received from a questionnaire they sent to DOE asking for names of staffers who attended climate change conferences. The Trump administration has since disavowed the questionnaire.

"They wouldn't be that dumb," Pugh said. "But given the lack of experience [in the transition team], at this point I would not be totally surprised."

That's not to say climate change language will remain intact. Pugh said that career staffers produce documents and memorandums that go through a political filter, so if career staffers include the climate benefits of a certain technology, political appointees would likely take it out before it sees the light of day.

Other former officials were also skeptical of a "ban" on climate phrases.

"I have real doubt about this," Samantha Gross, who led the Office of International Climate and Clean Energy under Obama, said in an email. "I know there is great concern about the mission of the office in the current administration, but this doesn't make much sense."

She added that the report is "sad if it is true."

Whether the recent directive to avoid climate language was an act of censorship or an act of self-preservation remains unclear.

The incident echoes earlier reports that agency employees removed references to climate change from DOE policy documents shortly after the election in order to not draw the ire of the new management.

Energy Secretary Rick Perry called climate change "all one contrived phony mess," and Trump has described it as a "hoax."

"What exactly is this office supposed to call itself now? The international C***** office?" Liz Perera, the Sierra Club's climate policy director, asked in a statement. "Rick Perry lied to Congress about climate science to get a job at an agency he wanted to eliminate, and he has started things off with a blatant dereliction of duty."

Jonathan Elkind, who used to lead DOE's international affairs branch under Obama, said that removing language on climate change ultimately would not shift the agency's work or its imperatives.

"The most important thing is that we continue collaborating on the work of energy efficiency and clean energy deployment that is all about creating jobs in the United States," he said. "We're not going to cause other international partners to not worry about climate

change."

Skeptical scientists want 'red teams' to review research

Scott Waldman, E&E News reporter

Published: Thursday, March 30, 2017

Two of the country's most prominent skeptical climate scientists want a formal system established to review research and make it easier to challenge the notion that there is a consensus in climate science.

The "red teams" would investigate climate research as well as the conclusions of the United Nations' Intergovernmental Panel on Climate Change, which found humans to be the primary driver of climate change, largely through the consumption of fossil fuels. The red teams would be modeled on the counter-investigative bodies at NASA and the Department of Defense that challenge ideas to better predict and estimate outcomes. The idea was floated during a congressional hearing yesterday on climate science by two witnesses invited by the Republican majority, which sought to cast doubt on the conclusions of the majority of researchers around the world.

The investigative body would look at natural variability and its effects on climate; the unreliability of climate models; and societal benefits of affordable energy, in particular fossil fuels, said John Christy, an atmospheric scientist at the University of Alabama, Huntsville, who has called into question the full extent of humanity's role in global warming.

"I would expect such a team would offer to Congress some very different conclusions regarding the human impacts on climate," he said.

Greater oversight would benefit researchers by challenging their own biases, said Judith Curry, an emeritus professor of the Georgia Institute of Technology's School of Earth and Atmospheric Sciences, who recently left the field because of what she called its "craziness." She said oversight is necessary to break the field out of its current pattern, which she

characterized as "I pledge allegiance to the climate model output." Curry has argued that too much of today's climate science is beholden to climate modeling, which can be inaccurate. She said creating additional levels of scrutiny would strengthen the field as a whole.

"We need to kick the tires and see if they survive, to see if it's wrong, to see how strong the other arguments are, and we need to do that," she said. "It's good scientific practice, especially for regulatory-type science, which this is now becoming. This would be standard practice, what you do for space missions, what you do for other fields."

Michael Mann, a climate scientist at Pennsylvania State University and a witness for the Democratic minority, said the red teams would stifle research. He said there are already assessments from the National Academy of Sciences as well as the basic peer-review process that vet scientific studies. He said suggesting that an outside force is necessary is the intentional creation of a problem where there is none.

"It's what the peer-review and assessment process does. It's almost like they're trying to invent things that already exist," he said. "The process of science has served us well for thousands of years, and tampering with it, as some of these folks want to do, is dangerous."

No, you're the Stalinist

The idea was one small part of a House Science, Space and Technology Committee hearing that mirrored the political canyon now dividing both Washington and the nation at large. It devolved into name-calling a number of times and largely strayed from a substantive discussion on scientific revelations capable of changing anyone's mind.

Chairman Lamar Smith (R-Texas), who took exception to Mann's labeling of climate doubters as denialists, referred to those who agree with the mainstream findings of climate as alarmists. Mann has had public spats with both Curry and Roger Pielke Jr., a political scientist at the University of Colorado. At the hearing, all referenced years of harassment, including from each other. Mann, who spent years fighting against climate denial groups seeking his emails, referenced the regime of Josef Stalin in the former Soviet Union when he discussed the threats climate researchers faced. Rep. Dana Rohrabacher (R-Calif.) later turned that accusation on its head and said climate scientists who criticize skeptics and

deniers are employing totalitarian tendencies.

"For scientists to call names to beat someone into submission, that's a Stalinist tactic," Rohrabacher said.

After three hours, it was clear that information flows in a partisan stream in Congress, as in the larger American public. Smith, who has said Americans should trust President Trump's tweets over the news media, slammed the journal Science for not being an objective source of news before entering a Wall Street Journal editorial into evidence.

"Alarmist predictions amount to nothing more than wild guesses," he said. "The ability to predict far into the future is impossible. Anyone stating what the climate will be in 500 years or even at the end of the century is not credible."

For anyone with even a passing knowledge of basic climate science, there was nothing new. Republicans played up uncertainty in climate science while downplaying the vast majority of researchers in the field who agree that humans are warming the planet at an unprecedented pace by burning fossil fuels. Democrats asked why the same tired arguments were being trotted out when policy discussions could be more fruitful.

"Our job will be to take the science and to try to make public policy decisions," Rep. Elizabeth Esty (D-Conn.) said. "Clearly, there is not total certainty here; however, if the risk is sufficiently great, we take steps even without certainty."

Rep. Bill Foster (D-Ill.), who is a physicist and one of the few members of Congress with a background in science, said the hearing was a "very strange mixture of science and not."

Mann said the purpose of the hearing was to establish a baseline to reject basic climate science to "provide an argument for the defunding of climate science that we're seeing and to provide an argument for their efforts to dismantle efforts to do something about climate change." He said there is a worthy debate to be had about policy, but the hearing should not focus on whether the very clear risk of climate change even exists.

One area of disagreement between some of the Republican lawmakers who invited them and the witnesses was in climate policy. The Republican majority has called for hundreds of millions in cuts to climate research, including some of the monitoring equipment utilized by NASA and the National Oceanic and Atmospheric Administration. Curry said the global observing systems at NASA and NOAA should be a top priority and should not face the cuts already outlined. Pielke, another GOP witness, said the debate should not stop policymakers from acting on climate change and suggested a carbon tax.

"Scientific uncertainty is not going to be eliminated on this topic before we have to act," he said.

Trump Leaves Science Jobs Vacant, Troubling Critics

By CECILIA KANG and MICHAEL D. SHEARMARCH 30, 2017

Michael Kratsios, center, the White House's deputy chief technology officer, with Jay Carney, left, a former press secretary for President Obama, and Reed Cordish, an adviser to President Trump, at a Washington luncheon in January. Credit Tony Powell/Washington Life Magazine

WASHINGTON — On the fourth floor of the Eisenhower Executive Office Building, the staff of the White House chief technology officer has been virtually deleted, down from 24 members before the election to, by Friday, only one.

Scores of departures by scientists and Silicon Valley technology experts who advised Mr. Trump's predecessor have all but wiped out the larger White House Office of Science and Technology Policy.

Mr. Trump has not yet named his top advisers on technology or science, and so far, has made just one hire: Michael Kratsios, the former chief of staff for Peter Thiel, the Silicon Valley investor and one of the president's wealthiest supporters, as the deputy chief technology officer.

Neither Mr. Kratsios, who has a bachelor's degree in political science from Princeton, nor anyone else still working in the science and technology office regularly participates in Mr. Trump's daily briefings, as they did for President Barack Obama.

"The impression this leaves is that Trump isn't interested in science and that scientific matters are a low priority at the White House," said Vinton G. Cerf, a computer scientist, vice president of Google and one of the chief architects of the internet. The dwindling of the White House science and technology staff for scientific research could have long-term consequences, Mr. Cerf said.

It is unclear whether the vacancies are the result of the Trump administration's overall slowness in hiring or a signal that the president places less importance on science and technology than Mr. Obama did.

A White House official who asked not to be identified cast the issue as one of timing: Mr. Trump, the official said, is still reviewing candidates to be his chief science adviser, considers the science and technology office important and will soon have a new staff for it.

But critics see the empty offices as part of a devaluation of science throughout the Trump administration, including the reversal of Mr. Obama's climate change policies and proposals to sharply reduce spending for research on climate change, science and health. They note that Mr. Obama appointed his top science adviser, John P. Holdren, a Harvard physicist and climate-change expert, in December 2008, weeks before his inauguration.

At the same time, conservatives — including a member of Mr. Trump's transition team — have called for getting rid of the White House Office of Science and Technology Policy. (The chief technology officer is a part of that larger office.) They argue that the office, created by Congress in 1976, is a bloated bureaucracy that duplicates expertise already found at government agencies.

"Eliminating the O.S.T.P. (or at least electing not to staff it until Congress can act) would not block the president from access to science and technology advice," James Jay Carafano,

who advised Mr. Trump's transition team, wrote in a report issued last summer by the conservative Heritage Foundation. "Rather, it eliminates a formal office whose purpose is unclear and whose capabilities are largely redundant."

Mr. Trump has echoed that sentiment, at least when it comes to government jobs over all.

Last month he responded to criticism about the high number of vacancies across his administration by telling Fox News that "a lot of those jobs, I don't want to appoint, because they're unnecessary to have."

"You know, we have so many people in government, even me," Mr. Trump said. "I look at some of the jobs and it's people over people over people. I say, 'What do all these people do?' You don't need all those jobs."

If Mr. Trump applies that logic to the science and technology office, he will end decades of tradition in which the president increasingly relied on his own advisers for expertise on federal research budgets, emerging trends and technical crises.

Mr. Trump's first budget proposes slashing \$5.8 billion, or 18 percent, from the National Institutes of Health and \$900 million, or about 20 percent, from the Energy Department's Office of Science, which runs basic research at the national laboratories. The Environmental Protection Agency would be cut by 31 percent.

On Tuesday, Mr. Trump issued executive orders that roll back Mr. Obama's Clean Power Plan, which would have closed hundreds of coal-fired power plants in an effort to curb planet-warming carbon dioxide emissions.

Those actions have been taken without advice or guidance from scientists and engineers inside the White House. The few remaining policy advisers have ceased distributing daily memos on policy issues like climate change, machine-learning regulation, or the ethics of big data collection.

“They are flying blind when it comes to science and tech issues,” said Kumar Garg, who left the Office of Science and Technology Policy as a senior adviser after the election.

There is no question that the science and technology bureaucracy at the White House expanded in recent years. In the George W. Bush administration, there were 50 people in the office, but Mr. Obama more than doubled the staff, to 130, and moved the office into a building on the White House grounds.

Mr. Obama turned to the science office during crises like the 2014 Ebola outbreak in Africa; the 2011 nuclear spill in Fukushima, Japan; and the Deepwater Horizon oil spill in the Gulf of Mexico in 2010.

The staff of the science office developed the White House’s recommendations for regulation of commercial drones and driverless cars at the Transportation Department. Last year, the staff produced an attention-grabbing report that raised concerns about the threat that robots posed to employment and that advocated retraining Americans for higher-skilled jobs. The staff also put on the annual White House science fair.

In 2011, when lawmakers proposed an online piracy bill known as the Stop Online Piracy Act, internet architecture engineers on the team advised the president to veto the bill because of security and privacy issues it would create.

“The agenda was always huge in scope and ambition, and something was always happening,” said Nicole Wong, a former deputy chief technology officer under Mr. Obama.

The departure of science and technology experts from the White House means dozens of science and technology programs begun during Mr. Obama’s term have gone untended in the weeks since Inauguration Day.

“The O.S.T.P. is the conduit for scientific perspective and scrutiny to the president and is a

priority in White House decision making,” said Danny Weitzner, a former deputy chief technology officer in the Obama administration and now the director of internet policy research at M.I.T.

Under Mr. Obama, the science and technology office included 19 policy advisers in the environment and energy division, 14 in the national security and international affairs division, nine in the science division and 20 in the technology and innovation division.

“We are all sitting on the edge of our seats hoping nothing catastrophic happens in the world,” said Phil Larson, a former senior science and technology adviser to Mr. Obama. “But if it does, who is going to be advising him?”

Current White House officials declined to say how many people remained in each division. But four former officials who recently left the office said that a wave of departures scheduled for Friday could potentially reduce the number of people left to a handful, not counting about eight administrative staff members.

Rep. Smith pans Science in heated hearing

Hannah Hess, E&E News reporter

Published: Wednesday, March 29, 2017

House Science, Space and Technology Chairman Lamar Smith (R-Texas) speaking during a hearing on climate science this morning. Photo courtesy of House Committee on Science, Space, and Technology.

Investigating individual climate researchers is not an appropriate role for Congress, witnesses warned members of the subpoena-wielding House Science, Space and Technology Committee today.

Pennsylvania State University's Michael Mann, best known for the "hockey stick" graph of global warming trends, suggested that Republican criticism of scientists is aimed at causing them to retreat from publishing and sending a "chilling signal" to the entire research

community "that if you, too, publish and speak out about the threat of human-caused climate change, we're going to come after you, too."

Roger Pielke Jr., a political scientist and professor from the University of Colorado, said a "bipartisan truce ending such investigations of individual researchers should start immediately."

Pielke accepts most mainstream scientific findings on man-made climate change, but he has aggressively attacked those who politicize the issue and cautioned that certainty about the long-term climate future is hard to come by.

Committee Chairman Lamar Smith (R-Texas) traded barbs with ranking member Eddie Bernice Johnson, a Democrat also from Texas, over his headline-generating quest to investigate scientists' work throughout the hearing.

"Disturbingly, the majority's unwillingness to accept the strong scientific consensus on climate change has led them to harass scientists who disagree with them," Johnson said.

Michael Mann

Well-known climate scientist Michael Mann. Photo courtesy of House Science, Space and Technology Committee.

Democratic staffers on the committee released a report analyzing the GOP's "nearly two-year crusade to attempt to undermine and invalidate" a study led by Thomas Karl, the recently retired director of the National Oceanic and Atmospheric Administration's National Centers for Environmental Information.

It concludes that the study, which disputes the global warming "pause," is based on verifiable data, and its well-respected co-authors say they are not part of a "nefarious conspiracy" to deceive the world about climate change. The study, which Science published in 2015, was well-received by scientists.

At one point, Smith challenged the credibility of Science, the prestigious publication by the American Association for the Advancement of Science — the world's oldest and largest general science organization. Former Rep. Rush Holt (D-N.J.) currently heads the organization.

"That is not known as an objective article or magazine," said Smith.

Reporting published by Science last week detailed Smith's speech at the Heartland Institute's 12th annual International Conference on Climate Change. The headline referred to a "climate doubters' conference."

There was plenty of infighting between the witnesses and members of the panel over the appropriateness of the terms "denier" and "doubter."

Rep. Don Beyer (D-Va.) described it as a "food fight among scientists."

Beyer said he had asked himself, "Why can't we all just get along?" and realized that it's because the stakes are so high.

"If the vast majority of scientists are correct about the human impact on warming, you have 55 million people in Bangladesh that will be displaced, or many countries, including the Maldives, that disappear from the planet," Beyer said.

"There's a lot at stake," Beyer concluded, "which is why this gets so high."

STEM workforce is aging — study

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On average, the age of U.S. scientists is increasing, according to a study by Ohio State University economists. The study included both private-sector and academic positions across STEM fields.

The average age increased from 45.1 in 1993 to 48.6 in 2010, and the number of scientific workers over 55 years old doubled during the same span. Researchers are trying to figure out what this means, whether an older research community keeps out developing scientists and the implications on productivity.

Study author David Blau said the baby boomer population bump accounts for some of this.

Scientists say they may retire later, given the nature of the work.

"Scientists are curious, driven people," said Ohio State astronomy professor emeritus Brad Peterson. "Any good research turns up two or three more research questions. There's no end in sight" (Marion Renault, Columbus Dispatch, March 29). — NB

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